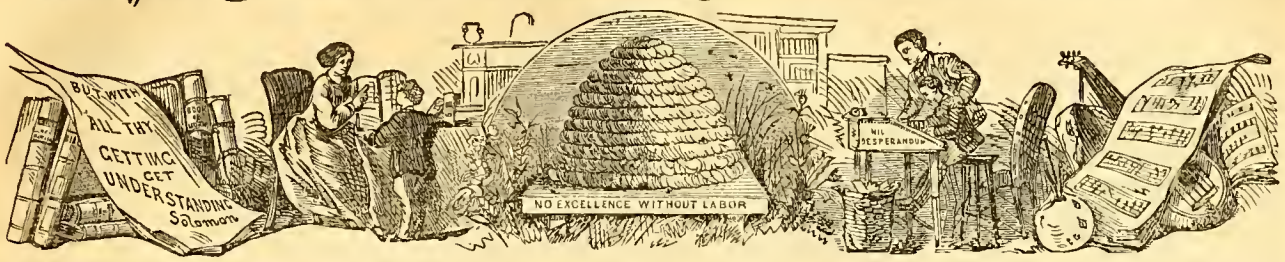
Holiness to the Lord!

The Juvenile Instructor



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INTEMPERANCE.

TO most of you, into whose hands this number may fall, the accompanying engraving will not be very suggestive, for you have had the good fortune to be reared in a country and among a people where such scenes as the one here represented are unknown. Whisky, rum and brandy are words full of fearful import, and blessed are they who pass through life without acquiring a taste for them or any other kind of intoxicating drink. Just look at the miserable wretch in the engraving. Mark his patched, shabby pants, his coat out at the elbows, his battered hat, and his helpless condition, and all brought about by drunkenness. He has been inside the drinking saloon, where everything is gaudy and gorgeous in appearance; but having spent his last dime, he has been turned out like a dog, and there he lies on the sidewalk to be jeered, scoffed at, kicked or illused, and he utterly unable to protect or defend himself. Look at the piece of paper pinned on the wall, just over him,

on which is written, "Specimen of work done Inside." Do you understand that? It means that the man who enters a drinking saloon sober, with money in his pocket, and conscious of everything taking place around him, when his money is all gone is turned out, helpless and destitute, to die in the ditch, for all they care who have sold the liquor to him.

Boys and girls, you may have never seen such horrible scenes as this, but they abound, in real life, in the East and West, and in every country in Europe. Take a walk in almost any street in any of the large cities in Christendom, and you may see the drunkard reeling along, or lying helpless on the ground. Himself in rags and tatters and, unless too drunk to talk, oaths and curses issuing from his lips, lost to every sentiment of self-respect, and despised by everybody. Would you believe that thousands of men pursue just such a course of life? It seems hardly possible to believe it, but it is unfortunately true that they do. And great as the evil which they thus work to themselves, they work infinitely more to others.

Go to the home and see the family of the drunkard, and there you may behold, not to the full, for that is inestimable, but more fully the evil and misery that his folly causes. See how his dwelling is furnished! Two or three shabby, old chairs, a broken table, a small cracked looking-glass hanging on the dingy walls; neither pictures nor books, nor anything to make home attractive or beautiful! See the wife and children of the drunkard; they are the very embodiment of wretchedness and poverty! His wife's cheeks hollow with want, her dress little better than rags, and may be the marks of her drunken husband's violence and abuse on her person. She has lost hope, she sees nothing in life to make it desirable. Compelled to toil unceasingly to procure bread sufficient to satisfy the hunger of her children, she is dejected, every energy paralyzed by want, poverty and illusage.

Then see the children! Poor things, they are little better than outcasts. Their clothing is of the shabbiest kind, and hardly enough to shield them from the cold. They rarely have a meal of good food; they know nothing about the benefits of schooling; the joys and comforts of home are unknown to them. Instead of gentle words and kindness—children's heritage at home, they have far more frequently harsh words and blows, for their father is a drunkard, and has long since ceased to care for either wife or children. Do you think the picture is overdrawn? It is not a bit. There are thousands of such homes and fathers, and hundreds of thousands of such women and children in Europe and America.

But this pitch of wretchedness and misery is not reached in a day, a week, a month or a year. The vice of the drunkard, like most or all others, is one which grows and strengthens the more it is indulged in. The young man of to-day, strictly sober and thoroughly industrious, may marry and start in life with every prospect before him, of a happy and prosperous career. But by and by, induced by the solicitations of friends or fellow-workmen, he takes a social glass, and this is followed by another, and another, until the taste for whisky, rum or brandy, is acquired, and then good-bye prosperity, good-bye comforts of home, good-bye to self-respect and to the respect of friends, all, everything that makes life desirable are sacrificed. Drink must be had. No matter if wife and children go short of food, the drunkard's craving must be satisfied. Their pleadings and tears are vain, for the feelings of the husband and father are obliterated by the passion inspired by the demon of intemperance, and nothing stops him in his downward career until, pitied and scorned by all, he sinks into the oblivion of the grave.

You may think this picture is exaggerated, but it has been the experience of countless numbers in the past, and as many more are following in the same track to-day. Drunkenness is among the greatest sins of every co-called Christian nation; and we have been induced to address our young readers thus plainly from the fact that, within the past two or three years, it has made its appearance, and is a growing evil in two or three of our principal cities. A few years ago "groggeries," or drinking saloons were unknown in Utah; but we regret to say that this is no longer the case; and we have greater regret in saying that occasionally one of our young men may be seen frequenting such places. The fate of all such, if they persist in the evil, is the same as that which has overtaken him in the picture; for the "Specimen of the work done Inside" is just as true of the drinking saloons of Utah as anywhere else. Let, "Touch not, taste not, handle not," be your motto, and you are safe; but once give way and learn to drink and to have an appetite for intoxicating drinks, and your prospects are blighted, and you have bid adieu to all hope of honor, respectability or usefulness in life.

The Scriptures state that the drunkard can not inherit the kingdom of God; and to close this article, we will refer you to and request you to read, the 35th chapter of the prophecies of Jeremiah, in which you will learn that the Great Creator so approved the course of the Rechabites, who totally abstained from the use of intoxicating drinks, that he promised them they should never want a man to stand before Him for ever.

HISTORY OF THE CHURCH.

(*Continued.*)

NO one not familiar with the circumstances which surrounded the people before and after leaving Nauvoo, can conceive of the difficulties which President Young and his brethren of the Twelve Apostles had to contend with in leading the people forth into the wilderness. His responsibility was, of course, far greater than that of all others combined; for he was the leader. To him all looked for counsel and guidance. If any were in trouble, they appealed to him for help. If there were difficulties, he had them to settle. The burden and direction of the affairs of the camp rested upon him, and it required incessant vigilance to maintain proper regulations in the camp, also to have the traveling properly arranged and the labors of the men managed to the best advantage. Let us give you a few instances, that you may form some idea of the weight of care which rested upon President Young during those days.

Hundreds of men left Nauvoo and crossed the river about the time the Twelve Apostles did. Many of them had but a small amount of provisions, and the teams and wagons that they moved with were furnished for the purpose of assisting the leading men to move and also to haul Church property. Three weeks were spent in camp at Sugar Creek until teams could be raised to haul the public property that was to go with the leading company, yet there were fifty teams lying there loaded with families who might very properly have waited until they had secured an outfit for themselves. While President Young and the other Apostles were there, eight hundred men reported themselves in camp without a fortnight's provisions. The camp was not more than one hundred and fifty miles from Nauvoo before President Young, who had started with one year's provisions for his family, had fed it all out. The other Apostles were in the same condition. This was a cause of constant embarrassment and difficulty. The men who ought to have been free to go ahead and find a suitable place for a home for the Saints were kept back. It seemed as if the people were determined not to let them proceed on their journey. They not only kept in their company and embarrassed their movements by requiring help in food, and occupying the teams that should have been used to assist them on their journey; but they exercised faith that the Twelve

Apostles might not get far ahead of them. Besides their prayers, there were hundreds at Nauvoo who were praying and importuning the Lord that they might be enabled to overtake the camp. All these were retarding causes, and the camp traveled so slowly that, in speaking upon the subject, President Heber C. Kimball said, it would take years to reach the mountains.

But while the above were causes of annoyance and perplexity, there were others which were of a more painful character than they were. There were men in the camp who would not be controled. One of these was a prominent man, who, instead of giving trouble, should have aided in warding it off. Bishop George Miller was unmanageable; he would not observe order, and could not be controled. Finally, President Young was compelled to say that he would be disfellowshipped from the camp unless he repented. This may have had some effect upon him for the time being; but if it had any, it was only temporary. He continued to manifest a disposition to draw off by himself, and to travel when and as he pleased. When a man indulges in such a spirit as he had, it is easy for a servant of God to perceive what the result will be. President Young remarked on one occasion that Bishop Miller sought to go ahead and separate himself from his brethren, but he could not prosper in so doing; he would yet run against a snag, he said, and call on him and the camp for help. This prediction was literally fulfilled not many months after. Himself and company did get into trouble through his running ahead, and help had to be extended to him. Within one year from the time of which we write, he openly apostatized, left the camp of the Saints, and moved to Texas, where Lyman Wight, one of the Twelve Apostles, had gone. He did not remain long there, but moved from that section of the country and joined Strang. Not long after this he died.

There were others, as well as he, whose conduct was painful in the extreme to the servants of the Lord. There were a few men in some of the companies who would pass spurious coin, or bogus money, as it was called, upon the people when they had an opportunity. This brought a disgrace upon the whole camp; for if one man who calls himself a Latter-day Saint, or "Mormon," does a mean or wicked act, it is not usual for him alone to be blamed; but it is generally saddled upon the entire people. One day as Presidents Young and Kimball were standing together at the latter's tent, they heard an outcry at an adjacent camp. They immediately repaired thither, and they found that the principal man of that camp and three others were quarreling about some property. It appeared that this man had let one of these men have some bogus money with which he was to buy property, and they were to share the profits. The man to whom he had given this money had not paid him the share which had been agreed upon; hence the quarrel.

An honest person can imagine how grievous and disgusting such proceedings would be to men like Presidents Young and Kimball. The former sharply reproved them for their conduct, and he told this principal man, that he could not govern himself, his family or a company, and unless he repented and forsook his dishonesty, the hand of the Lord would be against him and against all those who partook of such corruption.

His words were fulfilled to the letter. He and his whole family became apostates and very disreputable people, and the hand of the Lord was visibly against him. The man also to whom he gave the bogus money to pass, eventually lost his standing in the Church and went down.

Then there were men who broke the Sabbath and were careless about their other duties. There were others who were selfish and cared nothing for the rights of their brethren. We will relate an instance to illustrate this. One of the brethren who had been appointed to purchase corn, of which there was a scarcity in camp, made a bargain for a considerable quantity at twenty cents a bushel, for which he was to pay in feathers. You will doubtless think that feathers were a singular kind of pay; and if we did not explain, you would wonder where feathers could be obtained in the camp to sell for corn. But these were feather beds which the Saints parted with to get provender for their animals, and, in some instances, food for themselves. They not only sold their feather beds, but they sold their crockery, cooking utensils, and such things as they could possibly spare. They thought they were destitute enough when they started from Nauvoo; but they were becoming accustomed to hardship, and they were willing to deprive themselves of articles which, under other circumstances, they would have thought they could not have lived without. This they did through the love which they had for the gospel of Jesus Christ; and those who really had this love rejoiced and were happy in doing these things.

Having explained how Brother Howard Egan had feathers to sell for corn, we will return to the incident we were relating. Soon after he had made this bargain for the corn, another brother from the camp came up. He told the stranger that he would give him twenty-five cents per bushel for his corn, and he would pay him cash. Such an offer would be too tempting for many men to refuse, and this man accepted it, and the man who offered the cash, and the five cents more on the bushel, got the corn.

You can perceive from these few incidents which we have related how many were the cares and anxieties which rested upon the leading men, but especially upon President Young. The people were a good people, the best to be found in the world, for they were ready to forsake their homes and launch forth into an unknown wilderness for the sake of their religion; but they had many weaknesses, they were inexperienced, and many were ignorant. The responsibility which rested upon President Young was so great that he became greatly reduced in flesh, and his coat, that would scarcely meet around him before he started from Nauvoo, in the month of May, lapped over twelve inches! He entreated the people to be more united in spirit, and not to pray in such a manner that their faith was operating against the camp progressing on its journey. If a change did not take place, he felt that he would be brought down to his grave. He remarked in a public meeting that he could scarcely keep from lying down and sleeping to await the resurrection.

How little do many young people and persons who come here now from the various nations know about the toils and difficulties endured and passed through by the servants and people of God in the days of which we write. No one who is familiar with those days, or who has read the history of the journeyings of the Saints would ever murmur in the circumstances which now surround the people of these valleys, if he was not utterly destitute of the Spirit of God.

(To be continued.)

MEN WITHOUT HEARTS.—We sometimes meet with men who seem to think that any indulgence in an affectionate feeling is weakness. They will turn from a journey, and greet their families with a distant dignity, and move among their children with the cold and lofty splendor of an iceberg surrounded by its broken fragments. There is hardly a more unnatural sight on earth than one of these families without a heart. A father had better extinguish a boy's eyes than to take away his heart. Who that has experienced the joys of friendship and values sympathy and affection, would not rather lose all that is beautiful in nature's scenery, than be robbed of the hidden treasures of his heart. Cherish, then, your heart's best affection. Indulge in the warm and gushing emotions of the filial, paternal and fraternal love.

The Juvenile Instructor.

GEORGE Q. CANNON - - EDITOR.

SATURDAY, JULY 20, 1872.

EDITORIAL THOUGHTS.

AFRICA, the greatest of its explorers and probably the greatest of all modern travelers—Doctor David Livingstone—are what we shall make the subject of "Editorial Thoughts," in this number, for all young readers, almost without exception, take pleasure in reading accounts of hardships and dangers, and are greatly interested in him who dares to face, and endure them.

Of the four or five grand divisions into which the earth is separated, Africa is the least known; and from the very numerous savage tribes which inhabit its interior, together with the extreme heat of the climate, and the consequent drowth which almost constantly prevails, making it the most unhealthy land in the world for the white races, with the extraordinary numbers of wild animals, immense serpents and deadly snakes and insects which it contains, all combined render it a land of wonders and dangers without a parallel on the globe. But these very facts have all tended to create an interest in it which is felt in no other; and this has been further increased by the fact that the most famous of all rivers—the Nile, has its rise somewhere in the interior of the African continent.

For ages the solution of this problem has been one which men of science have been anxious to arrive at; but it has never been accomplished until our day. With such large numbers of savages inhabiting it, you may be assured, that the religious societies of the Christian world have taken a good deal of interest in sending missionaries to Africa, in the hope of converting the heathen, as its natives are called. Foremost among the names of these missionaries stand those of Robert Moffatt and David Livingstone, the latter the son-in-law of the former, whose years of toil in behalf of and among these savage tribes, enduring hardships of the most trying kind, and far away from friends and every comfort of civilization, has proved that they both were possessors of the most unselfish devotion, and were inspired with unconquerable love for their fallen and degraded fellow creatures. But it is of Livingstone that we wish to write about, and we shall therefore give you a very brief sketch of his life and labors.

He was born in Scotland, in very humble life, his parents belonging to the poorest of the working classes. At the age of ten, David had to go to work in a cotton factory, as a piecer, his only chance of acquiring any education being by attendance at a night school. The yearning for knowledge which he experienced was irresistible, and by close attendance to work from six in the morning until eight at night, he was enabled to save enough, after giving so much to his parents for his food and clothing, to attend school and to purchase a few books occasionally on travels, geography and medicine, which were his favorite studies. This was continued for several years, his studies being commonly continued until midnight.

When nineteen he was promoted to be a spinner, and was now able to support himself and to save enough to attend classes where Greek and medicine were taught. The great object of his life was to prepare himself to be a missionary, and China was the country he wished to labor in; but when in his twenty-fourth year, he was induced by the London Missionary Society to go to Africa, and with rare and very short intervals he has spent the rest of his life—about thirty-two years—among the various tribes of that continent, his labors and travels in that time having done more to remove the mystery concerning Africa than those of any man that ever preceded him in the field of African exploration, both as regards its people, geography, botany and zoology.

His first point in Africa was the Cape of Good Hope, but he stayed there only a very short time, proceeding very soon after his arrival, to the Bechuana country, seven hundred miles into the interior. After laboring among the aboriginal tribes in that portion of Africa nearly four years he married Miss Moffatt, whose father had long labored there as a missionary.

In 1856 the Doctor returned to Great Britain, but his inclination to travel did not allow him to stay long, and after a residence of two years he returned to Africa, and renewed his missionary labors and explorations in the interior.

After eight years more of African life, during which he discovered what are believed to be the head waters of the Nile, he once more returned to England, receiving ovations and honors from all the learned societies, his name having now become a household word, not only in Great Britain, but also in all the countries of Europe, and in the United States.

In the following year—1865, the Doctor prepared for a third journey to the interior of Africa, determined, if his life was spared, to fully and completely solve the question as to the rise of the Nile. On the 4th of August in that year he started, proceeding to Paris, and thence to Bombay in the East Indies, where he completed his outfit, being accompanied on his journey by several natives, including two boys from a school in Bombay, a Sepoy sergeant and several enlisted Sepoys. The entire party reached the Island of Zanzibar, on the eastern coast of Africa, in safety, and on the 28th of March 1866 crossed to the mainland and started at once for the interior. His friends in England occasionally received letters from him containing accounts of the health and progress of himself and party.

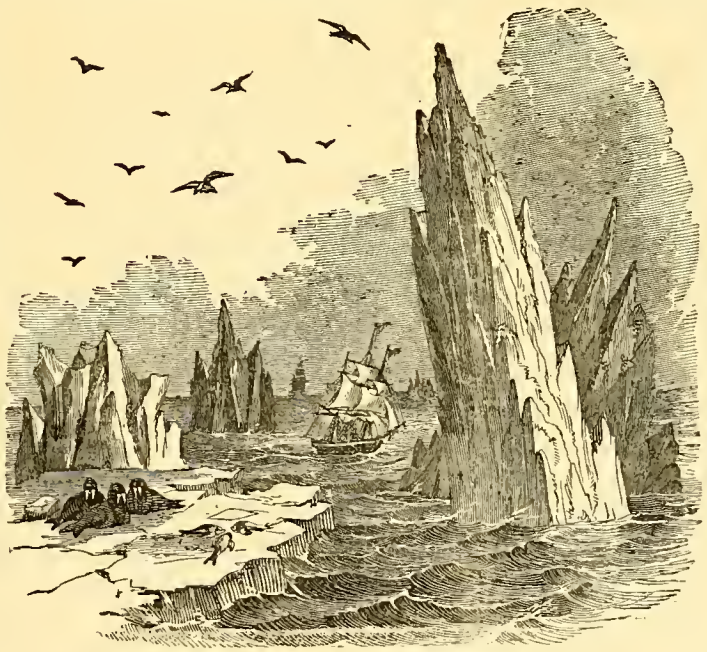
In December 1866 one of the East Indians named Moosa, who had left Zanzibar with him, returned to that island, bringing the sad news that the Doctor and his party had been killed by the natives on the shores of Lake Nyassa, Moosa being the only one who escaped. This news created intense sorrow in England and America, for the public mind had become greatly interested in the labors of the intrepid explorer, and the regret felt at his supposed untimely end was almost universal. But sometime after the return of Moosa, some of the other Sepoys also returned to Zanzibar, a circumstance which gave the lie to a portion of Moosa's statement, and as their story of the Doctor's fate did not agree with his, the idea began to gain ground that they had deserted the Doctor on account of the hardships of the journey, and that the story of his death was a fabrication in order that they might obtain their pay from the British consul at Zanzibar. This belief strengthened as time passed, and a subscription was soon started in England for the purpose of sending an expedition in search of Livingstone.

On the 25th of July 1867 this party reached Zanzibar, and immediately followed in the track the Doctor was believed to have taken, and during the remainder of the year they found and recovered several mementoes of the famous traveler, but failed to find him. The last letter from Livingstone received by friends in England was in February '67, and owing to the failure of the expedition to find him the belief gradually gained ground that his death had really taken place. But as this sad event had not been confirmed by anything positive, and as public interest in the fate of the Doctor was very great on both sides of the Atlantic, it finally devolved on the pluck and enter-

prise of an American editor to accomplish what the wealth, aristocracy and energy of the British had failed in doing—namely to discover Livingstone, not dead as was so long reported, but alive and well. The late, Mr. James G. Bennett, editor and proprietor of the New York *Herald*, who by the way was a countryman of the Doctor, felt so much interest in the fate of his illustrious compatriot, that at his own expense he fitted out an expedition and sent it to Africa to search for the Doctor. This expedition was under the command of Mr. Henry M. Stanley, a young Missourian, a correspondent of the *Herald* who was traveling in Europe. This gentleman, noted for bravery and powers of endurance, boldly pushed into the heart of Africa, and on the 16th of last October found the Doctor alive and well in the Ujiji country, still pursuing his geographical and missionary labors. Since he last left England, the Doctor has positively discovered the source of the Nile. The news of his safety has caused much joy in Englaud and America, and his arrival at Zanzibar, and return to England, are events which are impatiently expected.

ICEBERGS.

THE word icebergs is made up, as you see, of two—"ice" and "bergs," the latter meaning mountains, so that iceberg means, literally, ice mountain. You have all learned something about icebergs, how they assume almost every conceivable shape, that they are sometimes very large, have a very beautiful appearance, looking in the distance like grottoes, spires, old castles, monuments and buildings, of the most classic and elegant designs and styles of architecture. One may read all about this, also descriptions of the wonderful zodiacal light, or aurora borealis, seen almost constantly in northern regions—the home of the icebergs, and fancy how beautiful such sights are and how pleasurable it must be to witness them, without having the least idea of the dangers which beset the traveler and explorer in the Arctic regions.



It is undoubtedly true that some of the grandest and most sublime of Nature's displays are to be seen there; but the old adage, "All that glitters is not gold," is as true when speaking about icebergs and aurora borealis as of anything else, probably in the world, for the Arctic climate is so fearfully severe, and the country so barren, that risk of death by cold or famine is so imminent to all, save the savage, hardy, stunted natives, that whatever pleasure may be derived from witnessing the natural wonders there, is considerably alloyed by the constant sense of imminent danger.

Baffin's Bay, a large gulf or inland sea on the north-east coast of the North American continent, is noted for the number of icebergs continually to be met with on its waters, which is accounted for by the fact that its shores are bounded by lofty mountains, which are perpetually covered with snow.

You may fail to see any connexion between mountains covered with snow, and icebergs, for there are several mountains in Utah whose peaks are never free from snow, but nobody ever thinks of seeing such a thing as an iceberg here. The reason of this we will explain, and shall begin by asking you where and how icebergs are formed? You have read of the icefields of the northern or Arctic regions, and may have supposed, that icebergs are formed there; but it is not so. You have read of the glaciers of the Alps in Switzerland, and of other high mountains in various parts of the world. Well, these glaciers are the parents of the icebergs, or rather they are the icebergs themselves, only transported to a new element.

The glaciers, as you have perhaps often read, are formed by the occasional thawing and freezing again of portions of the snow, which is constantly accumulating on the peaks, and drifting into the hollows on the sides of the mountains. This process goes on year after year, the glacier, or mountain of ice and snow all the time increasing; and while it is increasing so is the snow and ice behind it, and finally, as these masses stand on the slopes of the mountains, their weight, aided by the accumulations of the same material behind them, causes them to move gradually from their places, and this motion increases as it continues, and by and by a sufficient impetus is obtained to send down the whole mass with the speed of an arrow, and the world, almost, is sometimes shocked with the destruction wrought by the dreaded avalanche—the name the iceberg bears while it remains on land.

These avalanches are nothing more nor less than snow-slides on a gigantic scale, and you know that, in Utah, scarcely a Spring goes by without lives being lost by them; and if it were not for the care and caution exercised, these avalanches would be as destructive in the Rocky Mountains as in the Alps.

The shores of Baffin's Bay, and of every other region where icebergs are formed, or rather, where the glaciers glide into the sea, are bounded by these snow-covered mountains, and as exactly the same causes are operating and the same process is going on there, as on the inland Alps, these enormous accumulations of frozen snow descend the mountain sides and fall into the sea, and then they are called icebergs.

The size of these ice mountains is sometimes surprising. Sir John Ross measured one in Baffin's Bay three hundred and twenty-five feet high, and over three quarters of a mile in length. Woe to the unlucky ship, no matter how large, that has the misfortune to be compelled to steer through masses of ice of this character. If it escape at all, it has a hard road to travel; and if while attempting to do so it is jammed up, it is crushed by the ice as easily as if it were an egg.

From this short sketch you will easily understand that the beauty of the iceberg is something like that of the tiger or the anaconda—it can be admired with much greater zest while reading about, or when at a safe distance from, it than at any other time. With all such sights there is no doubt that, "Distance lends enchantment to the view;" and however full of wonder and awe the mind may become while admiring such manifestations of Nature's beauty-creating powers, none can feel easy or

breathe freely while laboring under the sense of danger which their near presence inspires.

[For the *Juvenile Instructor*.

Chemistry of Common Things.

HYDROCARBON.—NO. 9.—TURPENTINE.

WHEN common turpentine exudes from trees it soon dries up, or hardens into resin; it is then called "pine rosin," or "white rosin." Internally this substance is soft, but harder on the outside; it can be kneaded, as it contains sufficient turpentine to make it soft and dough-like.

To obtain the "oil" of turpentine this substance is distilled in a copper retort with a little water, the volatile spirit passes over and the resin remains; in this state it contains water, is of a yellow color, on being melted it loses this water and, on cooling, becomes brown.

This brown, transparent, brittle substance is called colophony, or "rosin," which is more or less dark according to the temperature it has been subjected to in distillation. It is the basis of the well known cobbler's-wax.

There is much that is curious in the formation of the hydrocarbons, whether they be of vegetable or of animal origin, formed in the trees or animals above the earth, or in the vast deposits beneath. That the natural forces should combine from the simple elements, carbon and hydrogen, so large a number of substances, frequently from the same elements, in precisely the same proportions, and yet produce substances entirely dissimilar in appearance and properties, is wonderful; although, it will be seen that there are other metamorphoses among organic bodies that are equally illustrative of the facility with which certain organic substances pass and repass into each other.

The sap of the whole of the pines, belonging to the great family of cone-bearing trees, contains turpentine; it is a solution of a resin in this spirit. The relation of the oil to the resin is such that the action of the air changes the oil into resin by exposure to oxygen. This is the reason that turpentine is so useful in painting, it liquefies the oil paint and facilitates its application to, and enables it to spread over, a large amount of surface, upon which it speedily hardens. Chemists account for this change by the tendency of the hydrogen of the turpentine to combine with oxygen. If this is the cause of hardening, which seems reasonable, the nature of the change may be better understood by symbols: (C H, plus H) in which it is only shown that a certain proportion of hydrogen is combined with a hydrocarbon. If this hydrogen is removed by combining with the oxygen of the atmosphere, which is known to be the case, then water is formed and a substitution of an equal quantity of oxygen takes the place of the hydrogen removed. This change is shown as (C H, O), in which it is seen that oxygen takes the place of hydrogen.

There are several forms of turpentine. Common turpentine from the Pinus sylvestris, the pine of the woods; Venice turpentine from another variety of pinus; American turpentine from pinus Canadensis and balsamea, the Canadian pine and balsam. The Canada balsam may be made very useful in the construction of small microscopes, the transparent resin is placed in a hole in a card and allowed to harden, its surface is sure to be a double convex, as all liquid bodies assume that shape under such circumstances. By making several holes of different sizes, lenses of different focal lengths may be made, by which objects will be greatly magnified. The Canada balsam is sold at the druggists.

Many years ago camphene was prepared from turpentine for illuminating purposes, the tendency to oxidize made it soon thicken, in which state combustion was imperfect, smoke was disengaged, and offensive odors were generated. Now-a-days more volatile illuminating oils are common, many of which are made from petroleum and other minerals. Oil-bearing rocks are now found in the vicinity of St. George in this Territory. Rocks may be tested for their mineral oils in a rude way by burning them in a stove. By noticing the difference in the weight of the ash that remains after burning, the amount of *combustible* matter is ascertained; by noticing the flame, if any, the presence and relative proportion of hydrogen is known; the presence of sulphur may be detected by the smell, and, if very abundant, by the characteristic color of the flame. It would be a great boon to discover hydrocarbonaceous rocks here in quantity, as they may be utilized as fuel, to say the least; there are oil-bearing rocks in Sanpete, perhaps in other places, that may be thus turned to account and even for illuminating purposes.

BETH.

HOW TO GET THE BEST PLACE.

I SAW a young man in the office of a western railway superintendent. He was occupying a position that four hundred boys in that city would have wished to get. It was honorable and "it paid well," besides being in the line of promotion. How did he get it? Not by having a rich father, for he was the son of a laborer. The secret was, his beautiful accuracy. He began as an errand boy, and did his work accurately. His leisure time he used in perfecting his writing and arithmetic. After a while he learned to telegraph. At each step his employer commended his accuracy, and relied on what he did because he was sure it was just right. And it is thus with every occupation. The accurate boy is the favored one. Those who employ men do not wish to be on the constant look-out, as though they were rogues or fools. If a carpenter must stand at his journeyman's elbow to be sure his work is right, or if a cashier must run over his book-keeper's columns, he might as well do the work himself as to employ another to do it in that way; and it is very certain that the employer will get rid of such an inaccurate workman as soon as possible.

I knew such a young man. He had a good chance to do well, but he was so inaccurate and unreliable that people were afraid to trust him. If he wrote a deed, or a mortgage, or a contract, he was sure either to leave out something or put in something to make it an imperfect paper. He was a lawyer without business, because he lacked the noble quality of accuracy. Just across the street from him was another young lawyer, who was proverbial for accuracy. He was famous for searching titles, and when he wrote out the history of a title to a piece of property, it was taken for granted as just so. His aim was absolute accuracy in everything. If he copied a conveyance, or cited a legal authority, or made a statement, he aimed to do it exactly. The consequence is, he is having a valuable practice at the bar, and is universally esteemed.

"But," says some boy, "when I become a man, that is the way I shall do. I mean to be very accurate."

Perhaps so. I could tell better if I knew just how you do your work now. There are several ways of getting a lesson. One is, to get it "tolerable well," which does not cost much labor; the other way is, to get it faultlessly well; which costs a great deal of labor. A boy can get a general idea of his lesson "in a jiffy," but to get it with accuracy is very hard, and requires both time and industry. If you, my boy, to-day are

getting your lesson in the slip-shod way, you will grow up a slip-shod man; but if to-day your habit is to get every lesson with perfect accuracy, I will warrant you will do that way when you become a man. *Selected.*

ANCIENT AND MODERN PUGILISM.

(*Concluded.*)

IN the famous Olympic and Nemean games of the Greeks, prize fighting was one of the most attractive features. In those days, however, the forearms and fists of the boxers were encased in a number of leather thongs, which inflicted terrible wounds when used by a skillful pugilist.

The Olympic games of the Greeks were instituted 776 years before the Christian era, and were held at the beginning of every fifth year afterwards. At the twenty-fourth of these games the first "prize fight" probably ever fought, took place, one Onomastos, of Smyrna, being the victor. Homer, the father of poetry, and Pindar, both very celebrated Greek poets, thought pugilistic prowess worthy of their verse. The most noted boxers of ancient Greece, came from Arcadia, Elis, Egina and Rhodes. Diagoras, a Rhodian, was one of the ancient Jem Maces, and his valor is celebrated by Pindar. Diagoras trained his sons to the same business, and died of joy at seeing two of them declared victors in contests at the Olympic games.

Epeus and Euryalus were two more very valiant boxers among the Greeks, and in describing a contest between them, Homer uses the following language: "The divine Epeus, landing upon his adversary, gives him a buffet on the cheek that makes him drop. He falls, his friends surrounding him, carry him away insensible, his legs hanging powerless, his head drooping on his shoulder, and dark blood flowing from his mouth."

Sometimes the fighters aimed, by their skill in parrying each other's blows—the artistic part of boxing—to fatigue each other, but never to receive a blow. Two of the most noted combatants of this kind in ancient times were Damoxene and Kreugas, the former a native of the country now called Albania, the latter a Syracusan. They fought together in the Nemean games, and as their skill in parrying was about equal, their combat threatened to last all night. To prevent this, and to bring the contest to a speedier close, they agreed to cease parrying, and to receive each other's blows, striking by turns, when one struck the other to remain motionless. Kreugas had the first blow, and it is said his fist fell on the head of Damoxene like a heavy hammer. But heavy as it was it did little harm, and Damoxene's turn having now come, he signed to his opponent to hold his arm above his head. Kreugas did so, when Damoxene, whose finger nails were very long and pointed, and his hand laced with leather thongs, drove his finger nails into Kreugas' stomach, and tore out his entrails, causing his death almost instantly. To strike a blow with the intent to cause death was "foul"—contrary to the rules of the sport, and the victor in this case was banished, the dead man had a crown awarded to him, and a statue was erected in his honor.

Glaucus was another noted boxer in olden times, and so terrific was his strength of fist, that he was once known to use it instead of a hammer to drive on the share of his plough, which had become detached.

The following passages from ancient Greek writers, will show that ancient and modern pugilism were alike brutal in character, and that if there is any difference at all between them, the ancient was the more brutal of the two:

"The conquerer at the Olympic games whom you see in that dilapidated state, had yesterday a nose, a chin, nostrils, ears and eyelids. But in the exercise of pugilism he has lost all these embellishments, and even his inheritance. He can not have a part of his patrimony, for he has been confronted with his portrait, which his brother produced in the Court of justice, and it has been decided that he is not the same individual. There is not the slightest resemblance between the portrait and him."

"Thou, Stratophon, after four hours of pugilism, hast become unrecognizable, not only by the dogs, but by the whole town; and if you wish to look at yourself in the mirror you will cry out, 'I am not Stratophon,' and you will take your oath on it."

Appollophanes, thy head has become like a seive, or like the edges of a book eaten by worms. One would take the cuts which the cestus, (an instrument made of leather thongs in which the hand and arm of the fighter was encased) has made in it for the notes in a piece of Lydian or Phrygian music. Nevertheless you can fight again without fear of being disfigured. There is no room left on your head to receive further wounds."

"Andreolus! I have fought valiantly as a pugilist in all the games of Greece. At Pisa I lost an ear, at Plateum an eye, at Delphos they carried me off insensible. But my father, Damoteles, together with my countrymen, were prepared to carry me from the arena either dead or wounded."

From what has been said our readers will perceive that in all ages, since the practice began, pugilism has been the pursuit only of the lowest and most brutalized specimens of civilized humanity; and while, under some circumstances, it might be advantageous to be able to use one's fists according to the rules of this art, to ward off the blows of an antagonist, yet no one who respects himself, or desires to be respected by others, will ever become a pugilist.

THE DUCKING STOOL.

MOST of the first settlers of the colonies now composing the oldest portion of the American Union, were people who, on account of religious persecutions, had to leave their native lands—England and other countries in Europe. This being the case one might have supposed that, on founding colonies in the new world, the government of which was almost wholly under their own control, their laws regarding religion would have been of the most liberal character. But in several of the colonies it was just the contrary of this, for they were of the most intolerant character. The "Blue Laws" of the colony of Connecticut are a striking example in point. So rigid were the notions of the authorities in that colony that the language of some of their statutes read as follows:

"No one shall be a freeman or give a vote unless he be converted or a member in full communion of one of the churches allowed in this dominion.

"No one shall hold any office who is not *sound in the faith*, and faithful to this dominion; and whoever gives a vote to such a person shall pay a fine of one pound. For the second offence he shall be disfranchised.

"No Quaker or dissenter from the established worship of this dominion shall be allowed to give a vote for the election of magistrate or any officer.

"No food and lodgings shall be allowed to a Quaker, Adamite, or other heretic.

"If any person shall turn Quaker he shall be banished, and not suffered to return again on pain of *death*.

"No one shall run of a Sabbath day, or walk in his garden or elsewhere, except reverently, to and from church.

"No one shall travel, cook victuals, make beds, sweep houses, cut hair or shave on the Sabbath day.

"No woman shall kiss her child on Sabbath or fasting day."

This bigotry and intolerance was not confined to the colony of Connecticut, but was common in most of the others, but was

carried to the greatest extreme in what are now called the New England States.

The same spirit was manifestd in the laws enacted to regulate the customs of social life. Among the laws of this class it was provided that a certain kind of lace for trimming dresses should not be worn if it exceeded two shillings a yard, without the owner being taxed; that any person bringing cards or dice into the colony should be fined five pounds; that no persou should be allowed to read the common prayer book, keep Christmas or Saints' days, or play ou any instrument of music except a drum, trumpet or jewsharp; another law, and this you will admit was a useful one, enacted that any person who slandered a neighbor should sit in the stocks, or receive fifteen strokes from a whip on the back.

If such a law were enforced in these days there would be a great many sore backs; but the passage of laws such as were enforced in colonial times would never be dreamed of now, much less attempted.

But we commeneed this sketch for the purpose of telling you about one of the most curious institutions of colonial times, and which was no doubt as useful as curious. Its use has long since gone out of fashion, and you have probably never heard of it. This was called the Ducking Stool, an instrument used in Virginia and some other colonies, for the purpose of punishing gossips and slanderers. In Connecticut, as you have already read, they had a law condemning characters of this kind to sit in the stocks or to be whipped; but the Ducking Stool was more severe than this. In the colonies where the Ducking Stool was used, it was customary to give three warnings to desist, to all parties guilty of gossiping and scandalizing their neighbors, then, if the admonitions had not the desired effect, the offender was brought before a magistrate and condemned to the punishment of the Ducking Stool.

The following extract from a letter written in June, 1634, by a Mr. Thomas Hartley, to Governor Endicott of Massachusetts, deseribes this curious instrument, and the method of using it. It is written in the quaint style and orthography of those days, and though it may be somewhat difficult, it will also be amusing to our young readers to read it understandingly:

"The day afore yesterday at two of ye clock in ye afternoon, I saw this punishment given to one Betsey, wife of John Tucker, who, by ye violence of her tongue had made his house and ye neighborhood uneomfortable. She was taken to ye pond near where I was sojourning, by ye officer who was joyned by ye Magistrate and ye Minister, Mr. Cotton, who had frequently admonished her, and a large number of People. They had a machine for ye purpose yt belongs to ye Parish, and which I was told had been so used three times this Summer. It is a platform with 4 small rollers or wheels, and two upright posts between which works a Lever by a Rope fastened to its shorter or heavier end. At ye end of ye louger arm is fixed a stool upon which sd Betsey was fastened by cords, her gown tied fast around her feete. The Machine was then moved up to ye edge of ye pond, ye Rope was slackened by ye officer, and ye woman was allowed to go under ye water for ye space of half a minute. Betsey had a stout stomach, and would not yield until shee had allowed herself to be so ducked 5 severall times. At length shee cried piteously, 'Let mee go! let mee go! by God's help I'll sin so no more.' Then they drew back ye machine, untied ye Ropes and let her walk home in her wetted clothes, a hopefully penitent woman."

The answer to the Charade in No. 13, is the ISTHMUS OF TEHUANTEPEC. Correct solutions have been received from James H. Anderson, Charles Denney, Joseph Bull, jr., Jos. Hyrum Parry, T. H. Roberts, John E. Callister and Hilda Dehlin, Salt Lake City.

Selected Poetry.

THE RAIN CONCERT.

Millions of tiny raindrops
Are falling all around,
They're dancing on the house-tops,
They are hiding in the ground.

They are fairy-like musicians
With anything for keys,
Beating time upon the windows,
Keeping time upon the trees.

A light and airy *treble*
They play upon the stream,
And the melody enchants us,
Like the music of a dream.

The deep *bass* is sounding
When they're dropping into caves,
With a *tenor* from the zephyrs,
And an *alto* from the waves.

Oh! 'tis a shower of music,
And Robin don't intrude,
If when the rain is weary
He drops an interlude.

It seems as if the warbling
Of the birds in all the bowers,
Had been gathered into rain-drops,
And was coming down in showers.

The blossoms all are bathing.
In the liquid melodies,
Breathing thanks in sweetest odors,
Looking up into the skies.

CHANNEL FOR LOVE.

Make channels for the stream of love,
Where they may broadly run;
And love has overflowing streams
To fill them every one.

But if at any time we cease
Such channels to provide,
The very founts of love for us
Will soon be parched and dried.

For we must share, if we would keep
That blessing from above;
Ceasing to give, we cease to have—
Such is the law of love.

[For the *Juvenile Instructor.*

CHARADE.

BY ALMA WARR.

I am composed of 9 letters:
My 8, 7, 8, 9, is a number;
My 8, 5, 8, is what you can see in a convent;
My 9, 5 3, 2, 6, 9, is one of the grand divisions of the Eastern Continent;
My 3, 2, 6, 9, is something that is of great service to sailors;
My 4, 3, 2, 5, 1, causes the death of many children;
My whole is an animal found in Utah.

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